

REMARKS

This is a Response to the Office Action mailed February 18, 2009, in which a three (3) month Shortened Statutory Period for Response has been set, due to expire May 18, 2009. Thirty (30) claims, including eight (8) independent claims, were paid for in the application. Claims 1, 2, 5-8, 10-13, 16-23 have been amended. No fee for additional claims is due by way of this Amendment. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090. Claims 1-26 are pending.

Claim objections under 37 CFR 1.75(c)

Claims 6-11 and 16-19 were objected to as being multiple dependent claims depending from multiple dependent claims. Claims 6-11 and 16-19 have been amended accordingly.

Claim rejections - 35 U.S.C. 112

Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirements, for purportedly providing “no direction on how the length and length types required by the system depend on a tradeoff between the transmission efficiency and TFCI decoding reliability.” Applicants respectfully disagree.

The specification not only mentions “*said lengths and length types depend upon the requirements of the system itself, typically are a tradeoff between the transmission efficiency and TFCI decoding reliability*” (page 12, lines 14-16), but also provides specific examples for determining the length and length type (e.g., “*when the RLC layer and MAC layer are transparently transmitted, this length is the size of the transmission block*”; “*the header-compressed packet or its compressed header or the data blocks containing the compressed header from the header compression algorithm unit shall be adapted to less than but closest to a pre-configured PDU length, with absent bits being padded*” page 12, lines 16-23).

Based on the above description, a person of ordinary skill in the art would readily appreciate how the lengths and length types are a tradeoff between the transmission efficiency and TFCI decoding reliability, and how to specify the lengths and length types in accordance with the demand of a particular system. Adjusting parameters for telecommunications and/or networking to match particular system requirements are well within the skill level of even relatively low skilled technician.

In light of the above, the claim subject matter of claims 1-5 are described in the specification in such a way as to enable one skilled in the art to make and/or use the invention without undue experimentation. Therefore, claims 1-5 comply with the enablement requirements of 35 U.S.C. 112.

Claim rejections - 35 U.S.C. 103

Claims 1, 2 and 12 were rejected under 35 U.S.C. 103(a) as purportedly being unpatentable over U.S. patent 7002993 issued to Mohaban et al. (hereinafter Mohaban) in view of U.S. patent application publication 2002/0097701A filed by Lupien et al. (hereinafter Lupien).

As amended claim 1 recites, *inter alia*, “header-compressing a number of RTP packets, to obtain header-compressed RTP packets having a plurality of different header compression lengths, *wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets.*” (Emphasis added.)

Mohaban provided techniques for aggregating several media packets for transmission over a packet-switched network. The aggregation is performed by aggregating payload from the several media packets under a single common header. The single header is followed by the aggregated payload, which is an aggregation of multiple payloads from multiple media packets. Mohaban, Summary of the Invention and Figure 5. In other words, Mohaban teaches that a single header for an aggregated media packet encapsulates the aggregated payload coming from a plurality of RTP packets.

In contrast, as recited in claim 1 the RTP packets are header-compressed, while in each of the header-compressed RTP packets, a **single compressed header** corresponds to a **single RTP payload**. Such is not taught or even suggested in Mohaban.

Lupien relates to a method for transmission of headerless data packets over a wireless link. Lupien does not teach or even suggest a method in which “a single compressed header corresponding to a single RTP payload in each of the header-compressed RTP packet” as recited in amended claim 1, so fails to supply the above identified teaching missing from Mohaban.

Claim 1 is consequently novel and nonobvious since neither Mohaban nor Lupien teach or suggest all of the limitations recited in claim 1. Since claim 1 is novel and nonobvious, claim 2 which depends from claim 1 is novel and nonobvious based on that dependency, as well as the additional limitation recited in claim 1.

As amended claim 12 recites, *inter alia*, “a header compression unit to header-compress RTP packets, to obtain header-compressed RTP packets having a plurality of different header compression lengths, *wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets.*” (Emphasis added.)

Claim 12 is patentable over the combination of Mohaban and Lupien for the same reasons as discussed above in reference to claim 1.

Claims 3-5 were rejected under 35 U.S.C. 103(a) as purportedly being unpatentable over U.S. patent 7002993 issued to Mohaban et al. (hereinafter Mohaban) in view of U.S. patent application publication 2002/0097701A filed by Lupien et al. (hereinafter Lupien) and further in view of U.S. patent application publication 2001/0041981 filed by Ekudden et al. (hereinafter Ekudden).

Claims 3-5 depend indirectly from claim 1, and thus include the limitations of claim 1. As discussed above, neither Mohaban nor Lupien teach or suggest a method in which “a single compressed header corresponding to a single RTP payload in each of the header-compressed RTP packet.” Ekudden does not supply the identified teaching missing from both Mohaban and Lupien. Thus, claims 3-5 are patentable over the combined teachings of Mohaban, Lupien and Ekudden, as well as for the additional limitations recited in the respective dependent claims.

Claim 13 was rejected under 35 U.S.C. 103(a) as purportedly being unpatentable over U.S. patent 7002993 issued to Mohaban et al. (hereinafter Mohaban) in view of U.S. patent application publication 2005/0213546 filed by Ritter et al. (hereinafter Ritter).

As amended claim 13 recites, *inter alia*, “header-compressing RTP packets and marking a compressed header and an RTP payload, wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets.” (Emphasis added.)

As discussed above in reference to claim 1, Mohaban does not teach “header-compressing RTP packets and marking a compressed header and an RTP payload, wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets.” Ritter does not supply this teaching that is missing from Mohaban. Consequently, claim 13 is novel and nonobvious over the combined teachings of Mohaban and Ritter.

Claims 14 and 15 were rejected under 35 U.S.C. 103(a) as purportedly being unpatentable over U.S. patent 7002993 issued to Mohaban et al. (hereinafter Mohaban) in view of U.S. patent application publication 2005/0213546 filed by Ritter et al. (hereinafter Ritter) and further in view of U.S. patent application publication 2001/0041981 filed by Ekudden et al. (hereinafter Ekudden).

Claims 14 and 15 depend either directly or indirectly from claim 13. As discussed above with reference to claim 1, Mohaban does not teach or even suggest “header-compressing RTP packets and marking a compressed header and an RTP payload, wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets.” Neither Ritter nor Ekudden supply this teaching which is missing from Mohaban. Consequently, claims 14 and 14 are novel and nonobvious over the combined teachings of Mohaban, Ritter and Ekudden.

Claims 20-22 were rejected under 35 U.S.C. 103(a) as purportedly being unpatentable over U.S. patent 7002993 issued to Mohaban et al. (hereinafter Mohaban) in view of U.S. patent application publication 2005/0213546 filed by Ritter et al. (hereinafter Ritter)

Claim 20 recites “wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets”, “receiving and extracting the compressed header and the RTP payload from SDUs of the RLC entities” and “combining the extracted compressed header with the RTP payload.”

As discussed above in reference to claim 1, Mohaban teaches that a single header for an aggregated media packet encapsulates the aggregated payload coming from a plurality of RTP packets. Consequently, Mohaban does not teach or even suggest a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets receiving and extracting the compressed header and the RTP payload from SDUs of the RLC entities and combining the extracted compressed header with the RTP payload as recited by claim 20. As previously noted, Ritter fails to cure the deficiency of Mohaban to teach such. Hence claim 20 is patentable over the combined teachings of Mohaban and Ritter for similar reasons as discussed above in reference to claim 1.

As amended claim 21 recites, *inter alia*, “a header compression unit to header-compress RTP packets and mark a compressed header and an RTP payload wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets” and “a radio link adaptation unit to separate the compressed header from the RTP payload based on said marking, to respectively form PDCP layer PDUs before mapping the respective PDCP layer PDUs to different RLC entities.”

As discussed above in reference to claim 1, Mohaban teaches that a single header for an aggregated media packet encapsulates the aggregated payload coming from a plurality of RTP packets. Consequently, Mohaban does not teach or even suggest a header compression unit to header-compress RTP packets and mark a compressed header and an RTP payload wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets and a radio link adaptation unit to separate the compressed header from the RTP payload based on said marking, to respectively form PDCP layer PDUs before mapping the respective PDCP layer PDUs to different RLC entities as recited by claim 21. Ritter fails to supply this teaching that is missing from Mohaban. Hence claim 21 is patentable over the

combined teachings of Mohaban and Ritter for similar reasons as discussed above in reference to claim 1.

As amended claim 22 recites, *inter alia*, “receiving and extracting unit for receiving and extracting the compressed header and the RTP payload from SDUs of the RLC entities, *wherein a single compressed header corresponds to a single RTP payload in each of the header-compressed RTP packets.*” (Emphasis added.)

As previously noted, Ritter fails to supply the identified teaching that is missing from Mohaban. Claim 22 is patentable over the combined teachings of Mohaban and Ritter for the same reasons as discussed above in reference to claim 1.

Claims 23-26 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. patent 7002993 issued to Mohaban et al. (hereinafter Mohaban). Applicants respectfully disagree.

Claim 23 is independent and recites, *inter alia*, “monitoring whether or not the bandwidth requirement of the RTP packet exceeds a predetermined value” and “if the bandwidth requirement of the RTP packet exceeds the predetermined value and there is an RTCP packet to be transmitted, buffering the RTCP packet.”

The Office Action alleges that Mohaban discloses “*monitoring whether or not the bandwidth requirement of the RTP packet exceeds a predetermined value*” in table B and C in column 7. However, table B and C of Mohaban show examples of bandwidth savings using the approaches of Mohaban, it is totally silent about “monitoring whether or not the bandwidth requirement of the RTP packet exceeds a predetermined value” as defined in claim 23.

The Office Action also alleges that in figure 9 of Mohaban, main memory 906 and storage device 910 corresponds to “*if the bandwidth requirement of the RTP packet exceeds the predetermined value and there is an RTCP packet to be transmitted, buffering the RTCP packet*” of claim 23, and processor 904 corresponds to “*continuously monitoring the bandwidth requirement for the RTP packet*” of claim 23.

However, figure 9 of Mohaban illustrates the block diagram of a general computer system for implementing its invention. Column 9, lines 53-60 mentions “*main memory 906 is used for storing information and instructions to be executed by processor 904, or*

for storing temporary variable or other intermediate information during execution of instructions to be executed by processor.” Column 9, lines 63-65 describes the functions of storage device 910. Obviously, what main memory 906 and storage device 910 do are general operations performed by memory or storage device in a computer system, the information and instructions stored therein refer to general information and instructions used by a processor to operate a computer, they have nothing to do with RTP packet or RTCP packet, or the buffering of RTCP packet as defined in claim 23.

In addition, figure 3, block 334 of Mohaban is to determine whether the aggregated media packet contains a sufficient number of RTP segments or has reached a pre-configured threshold length. This seems to have nothing to do with *“transmitting the RTCP packet when the bandwidth requirement of the RTP packet is lower than the predetermined value”* of claim 23. The method of claim 23 is directed to scheduling the transmission of the RTCP packet, so as to transmit the RTCP packet at a time when the RTP packet has high compression rate or there is no RTP packet to be transmitted, thereby avoiding the occurrence of large bandwidth requirement.. That is, in claim 23, the transmission of RTCP packets are scheduled according to the bandwidth of RTP packets. Mohaban does not appear to even mention such scheduling.

In light of the above, it is respectfully submitted that claim 23 is not anticipated by Mohaban. Claims 24 and 25 are directly dependent from claim 23. Thus, claims 24 and 25 are not anticipated by Mohaban at least for the same reasons that claim 23 is not anticipated.

Claim 26 is independent and recites, *inter alia*, “bandwidth monitoring means for monitoring whether or not the bandwidth requirement of the RTP packet exceeds a predetermined value” and “buffering means for buffering the RTCP packet, in response to the result of the judging means that the bandwidth requirement of the RTP packet exceeds the predetermined value.”

As discussed above in reference to claim 23, Mohaban does not teach monitoring whether a bandwidth require of an RTP packet exceeds a predetermined value and buffering the RTCP packet in response, as recited in claim 26. Thus, claim 26 is not anticipated by Mohaban for similar reasons as set out above in reference to claim 23.

Conclusion

Overall, the cited references do not singly, or in any motivated combination, teach or suggest the claimed features of the embodiments recited in independent claims 1, 12, 13, 20-23, and 26, and thus such claims are allowable. Because the remaining claims depend from allowable independent claims 1, 12, 13, 20-23, and 26, and also because they include additional limitations, such claims are likewise allowable. If the undersigned attorney has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found.

In light of the above amendments and remarks, Applicants respectfully submit that all pending claims are allowable. Applicants, therefore, respectfully request that the Examiner reconsider this application and timely allow all pending claims. Examiner Maglo is encouraged to contact Mr. Abramonte by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. If the Examiner notes any informalities in the claims, he is encouraged to contact Mr. Abramonte by telephone to expediently correct such informalities.

Respectfully submitted,
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